



**AUTEXIER**

**MANUFACTURER OF INDUSTRIAL MARINE AND OIL & GAS VALVES  
IN BRONZE AND ALUMINIUM-BRONZE**

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## **Instructions of assembly and maintenance for expansion joints**



**154**

### **I) Checking at the delivery**

Check at receipt that the packaging has not been damaged, that the delivered expansion joints is in accordance with your order and that the material is not damaged.

### **II) Storage**

The expansion joints can reach the site several months before commissioning. Performance may be degraded if special care is not taken in their storage and protection.

It is recommended to store the expansion joints in a clean, closed site, protected from weather and projections of sand, dust and other solid particles. Leave them as much as possible in their original packaging. The plugs, protections threads, plastic envelopes, will be removed only when they are installed. Avoid impacts on the sealing surfaces of the threads.

### **III) Assembly of the expansion joint**

- 1) The expansion joints must be handled with particular care. Prevent the ingress of foreign bodies in the expansion joint during installation and operation.
- 2) During assembly or maintenance, if the expansion joint is located in an explosive area, use a material in accordance with the explosive classification of this area, without insulating it electrically from the rest of the system to avoid any electrostatic phenomenon.

### **IV) Instructions**

- 1) It is strictly forbidden to neutralize the mechanism of the expansion joint.
- 2) Any foreign body should block the openings of the expansion joint. Do not let any viscous fluids or fluids that can leave residue by drying penetrate inside the expansion joint, which would cause a flow jam or block the mechanism.
- 3) The expansion joint should be installed in a place where there is no risk of shock or water hammer which could damage its working.
- 4) Insulate the equipment if the temperature of contact requires it (for staff in case of explosive atmosphere in or out of the equipment), and allow only the access to the approved staff. For the equipment, it is imperative to stay in a beach temperature indicated on the identification plate or failing on the product data sheet.
- 5) It is imperative to respect the defined conditions announced by our staff (pressure, temperature, and fluid). Do not use corrosive fluids or fluids likely to provoke a significant wear, no unstable fluid with risky decomposition; do not use several fluids which could react altogether or release derivatives leading to an explosive atmosphere and no viscous fluids likely to solidify at one moment or another.



- 6) It is recommended to take care to limit as much as possible the forces due to misalignments of the connecting pipes and if several expansion joints must be installed on a straight section of pipe, it is imperative to segment them by intermediate anchor points (*see diagram*).
- 7) It is necessary to eliminate any previous and post pressure before removing the expansion joint and be sure not to create an explosive inside or outside the expansion joint. The staff operating the setting up of the expansion joint will be trained to perform this operation and will wear all necessary protections linked to the carried fluid.
- 8) Do not let the mechanism in intermediate position for a long time to avoid any phenomenon of cavitation and/or erosion.
- 9) Do not modify the documents furnished by AUTEXIER (instructions, metal plates, certificates etc.).

**CAUTION: AUTEXIER is not anymore responsible of the good working of the expansion joint if this one has been dismantled or modified by a person not approved by AUTEXIER.**

#### **V) Operating / Maintenance**

- 1) It is imperative to keep the expansion joint clean and ready to operate. It is necessary to check regularly that any foreign body will jam the piping and any particles and impurities will endanger the system.
- 2) The packing gland system (parts **12**, **13** and **14**) is assembled by our staff in our factory. However, during the expansion joint's lifetime, it can be necessary to tighten the *packing nut 14*; or to replace the *packing 12*. Before you perform this operation, take care to let the material come back to an ambient temperature and make sure that the installation is correctly purged, *tube 43* must be removed, undo the *packing nut 14*, remove the *packing 12*, set up the new packing inside the *body 1*, to screw the *packing nut 14*, to put back *tube 43* and to tighten the *packing nut 14*.

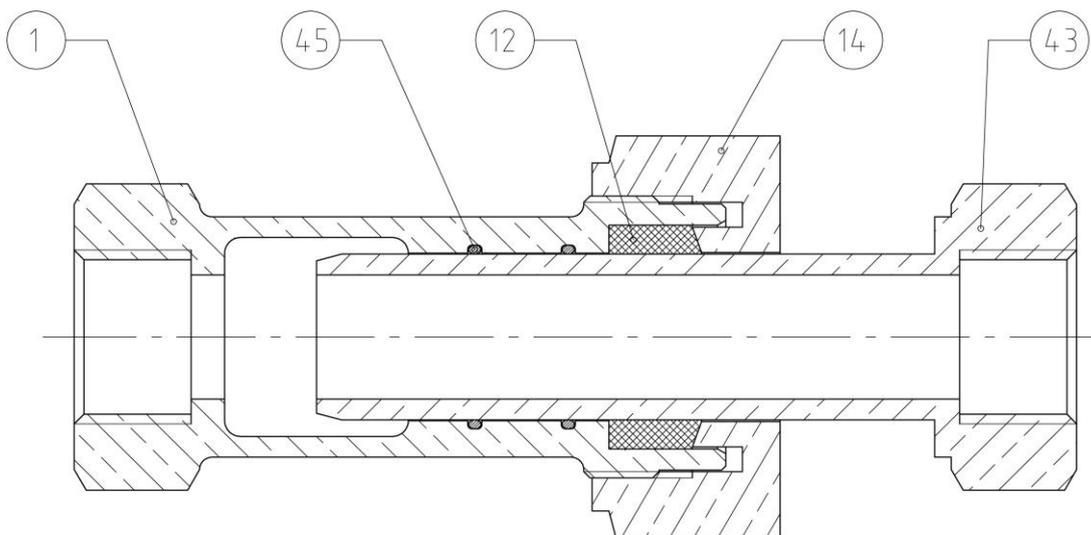
The packing gland systems must be tightened when the expansion joint is going to be used and just enough to ensure tightness.

This maintenance operation must be carried out by a skilled and authorized staff. This operation of dismantle and reassembly is the only one authorized by AUTEXIER under the condition that this packing is sold by the company AUTEXIER, the handling is done at an ambient temperature, the operator uses an equipment adapted to the classification of the working area (explosive risk) and make sure that the installation was correctly purged beforehand without creating an explosive atmosphere.

#### **VI) Guarantee**

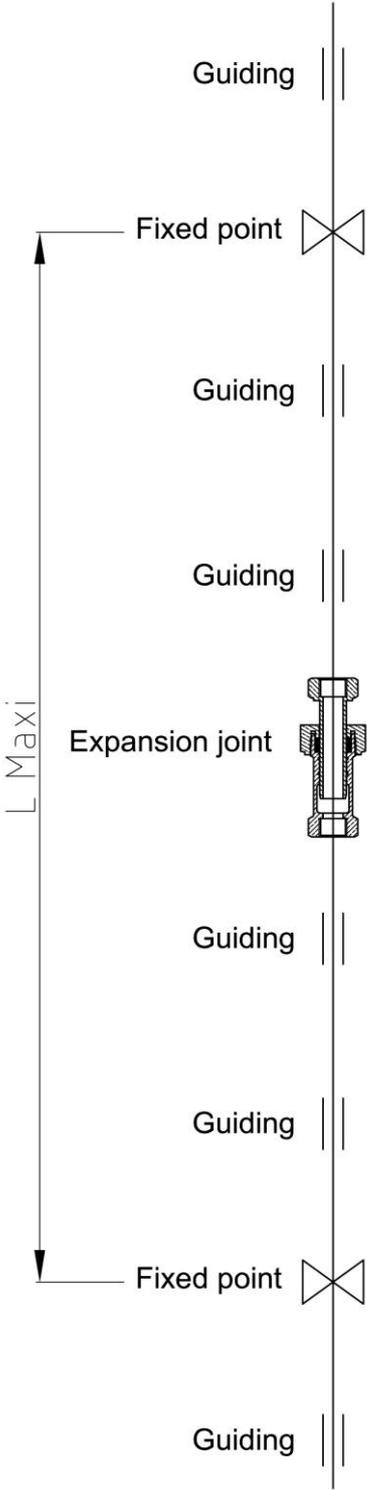
All our products are guaranteed during twelve months from the delivery against any defect of material or manufacturing, when the conditions of use are respected: this guarantee is limited to the replacement or to the repair by our company of the defective recognized parts. We decline all responsibility in case of non respect with our instructions.

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VII) Anchoring diagram

DN	L Maxi (m)
12	11
15	12
20	12
25	12
32	17
40	18
50	22
65	23
80	28



### VIII) Marking

After being tested and adjusted, each expansion joint is sealed by AUTEXIER. If another agency makes a mark by punching the expansion joint must not be damaged. Poorly executed, deformations could make tap fugitive, or inoperative. Punching of thin walls is prohibited.

Expansion joint s are identified by a plate with the following information:

- The date of shipment
- Specifications:
  - 1 - Designation: Reference of expansion joint
  - 2 - Number of the linked document and number of declaration of conformity to directive 2014/68/EU
  - 3 - Inlet nominal diameter and outlet nominal diameter
  - 4 - Maximum conditions of use
  - 5 - Envelope pressure test
  - 6 - Safety pressure
  - 7 - Set pressure (xx for this product)
  - 8 - Group of fluid G for Gas / L for Liquid or S for Steam
- If requirement, **CE** marking with number of identifying the notified body 0094 (LRQA)

 <b>AUTEXIER</b> <small>FABRICANT EN ROBINETTERIE INDUSTRIELLE          93 RUE LOUIS BLANC / 02300 CHAUNY FRANCE / + 33 (0)3 23 52 02 86</small>		jj/mm/aa :	
Désignation : <b>1</b>		N° Doc. : <b>2</b>	Dcl : <b>2</b>
○	Entrée (Inlet) : DN <b>3</b>	Sortie (Outlet) : DN <b>3</b>	
	PN (NP) : <b>4</b> Bar	TS (Mini./Max.) : <b>4</b>	°C
Pression d'essais (Test pressure) PT : <b>5</b> Bar			 0094
Pression maximale admissible (Safety pressure) PS : <b>6</b> Bar			
Pression de tarage (Set pressure) PDO : <b>7</b> Bar			
Groupe de fluide (Group of fluid) : <span style="border: 1px solid black; padding: 2px;">1</span> → <b>8</b>			

**It is imperative to respect the conditions of use stated on the rating plate (pressure, temperature, and fluid) under penalty of equipment damage and void the warranty.**

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